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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/515,978	02/25/2000	Gerald M. Benson	55250USA1A	9164

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EXAMINER

CHEVALIER, ALICIA ANN

ART UNIT	PAPER NUMBER
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1772

6

DATE MAILED: 05/09/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

MF=6

Office Action Summary

Application No.

09/515,978

Applicant(s)

BENSON ET AL.

Examiner

Alicia Chevalier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) 9-14 and 24-37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 15-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2, 3</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I, claims 1-8 and 15-23 in Paper No. 5 is acknowledged.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-8 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is unclear in scope which renders it vague and indefinite. It is unclear from the claim language if Applicant is claiming the geometric structure intermediate product as shown in figures 6 and 6a or the final geometric structure as shown by figure 10, since claim does not disclose the position of the plurality of faces, e.g. on an external exposed surface of the structure or at the internal interfaces of the two substrate surfaces.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4 and 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Mihalik (3,741,623).

Mihalik discloses a combined lens and reflector. The structure comprising an electroform (substrate with faces) with cubed corner geometry and a transparent body (substrate with faces) formed over the top of the electroform. The surface of the transparent body in contact with the electroform conforms to the cubed corner surface geometry. See figure 4 and column 2, lines 5-47. From the figures the reflector can be seen to have a transition line separating the substrates and that the compound face terminates at a nondihedral edge which is not parallel to the nondihedral edge.

6. Claims 1-4, 6-8, 16-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Amemiya et al. (5,429,857).

Amemiya discloses a decorative sheet comprising bright set-sold print layer (substrate with faces) with protrusions and recessed discontinuous pattern print layer (discontinuous substrate with faces) with protrusions (figure 7 and col. 2, lines 62-68). The protrusions have a depth of 1-100 μm (col. 3, lines 47-49) and can have a wavy or rectangular shape (figures 5a and 7). From the figures the decorative sheet can be seen to have a transition line separating the substrates and that the compound face terminates at a nondihedral edge which is not parallel to the nondihedral edge.

7. Claims 1, 3, 4, 6, 7, 16, 18, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Oshima et al. (5,866,233).

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Oshima discloses a decorative sheet comprising a transparent sheet body (substrate with face) that is provided with a discontinuous printed striped pattern (discontinuous substrate with faces) (col. 2, line 66 to col. 3, line 7 and figure 1). From the figures the decorative sheet can be seen to have a transition line separating the substrates and that the compound face terminates at a nondihedral edge which is not parallel to the nondihedral edge.

8. Claims 1-4, 6-8, and 16-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Bacon, Jr. et al. (5,614,286).

Bacon discloses a conformable cube corner reflective sheeting comprising a plurality of discrete cube corner segments (substrate and discontinuous substrate with faces) that are conformably bonded together (col. 6, lines 46-57 and figure 1). The height of the cube corner geometry on the segments is between about 125 to 375 microns (col. 7, lines 1-5). From the figures the retroreflective sheeting can be seen to have a transition line separating the substrates and that the compound face terminates at a nondihedral edge which is not parallel to the nondihedral edge.

9. Claims 1-4, 6-8, and 16-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Nilsen et al. (5,657,162).

Nilsen discloses a retroreflective article comprising a solid cube corner microprism (substrate with faces) coated with a discontinuous metallic layer (discontinuous substrate with faces) (col. 2, lines 35-67 and figure 2). From the figures the retroreflective article can be seen to have a transition line separating the substrates and that the compound face terminates at a nondihedral edge which is not parallel to the nondihedral edge.

Claim Rejections - 35 USC § 102/103

10. Claim 15 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Mihalik (3,741,623), Oshima et al. (5,866,233), Bacon, Jr. et al. (5,614,286) or Nilsen et al. (5,657,162).

Mihalik, Oshima, Bacon, and Nilsen all disclose all the limitations of the instant claimed invention except for the apparatus/method used to make the retroreflective article.

Process limitations are given little or no patentable weight. The method of forming the product is not germane to the issue of patentability of the product itself. Further, when the prior art discloses a product which reasonably appears to be either identical with or only slightly different than a product claim in a product-by-process claim, the burden is on the Applicant to present evidence from which the Examiner could reasonably conclude that the claimed product differs in kind from those of the prior art. *In re Brown*, 459 F.2d 531, 173 USPQ 685 (CCPA 1972); *In re Fessman*, 489 F.2d 742, 180 USPQ 324 (CCPA 1974). This burden is NOT discharged solely because the product was derived from a process not known to the prior art. *In re Fessman*, 489 F.2d 742, 180 USPQ 324 (CCPA 1974).

Furthermore, the determination of patentability for a product-by-process claim is based on the product itself and not on the method of production. If the product in the product-by-process claim is the same or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 946, 966 (Fed. Cir. 1985) and MPEP §2113. In this case, the limitation directed to the mold apparatus is a method of production and therefore does not determine the patentability of the product itself.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mihalik (3,741,623).

Mihalik discloses all the limitations of the instant claimed invention except for the angular orientations differ by less than 10 degrees of arc. The exact angular orientation is deemed to be a cause effective variable with regard to the reflective properties of the reflector. It would have been obvious to one having ordinary skill in the art to have determined the optimum value of a cause effective variable such angular orientation through routine experimentation in the absence of a showing of criticality in the claimed angular orientation. *In re Boesch*, 205 USPQ 215 (CCPA 1980), *In re Woodruff*, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990). One of ordinary skill in the art would have been motivated to change the angular orientation of the face to increase the reflective properties of the reflector.

13. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bacon, Jr. et al. (5,614,286).

Bacon discloses all the limitations of the instant claimed invention except for the angular orientations differ by less than 10 degrees of arc. The exact angular orientation is deemed to be a cause effective variable with regard to the reflective properties of the retroreflective sheeting. It would have been obvious to one having ordinary skill in the art to have determined the optimum

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value of a cause effective variable such angular orientation through routine experimentation in the absence of a showing of criticality in the claimed angular orientation. *In re Boesch*, 205 USPQ 215 (CCPA 1980), *In re Woodruff*, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990). One of ordinary skill in the art would have been motivated to change the angular orientation of the face to increase the reflective properties of the retroreflective sheeting.

14. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nilsen et al. (5,657,162).

Nilsen discloses all the limitations of the instant claimed invention except for the angular orientations differ by less than 10 degrees of arc. The exact angular orientation is deemed to be a cause effective variable with regard to the reflective properties of the retroreflective article. It would have been obvious to one having ordinary skill in the art to have determined the optimum value of a cause effective variable such angular orientation through routine experimentation in the absence of a showing of criticality in the claimed angular orientation. *In re Boesch*, 205 USPQ 215 (CCPA 1980), *In re Woodruff*, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990). One of ordinary skill in the art would have been motivated to change the angular orientation of the face to increase the reflective properties of the retroreflective article.

Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia Chevalier whose telephone number is (703) 305-1139. The Examiner can normally be reached on Monday through Thursday from 8:00 a.m. to 5:00 p.m. The Examiner can also be reached on alternate Fridays


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If attempts to reach the Examiner are unsuccessful, the Examiner's supervisor, Blaine Copenheaver can be reached by dialing (703) 308-1261. The fax phone number for the organization official non-final papers is (703) 872-9310. The fax number for after final papers is (703) 872-9311.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose phone number is (703) 308-0661.

ac

4/30/02



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